Abstract

Doing computation on the collection of computer resources from multiple locations to reach a common goal is known as grid computing. Task scheduling is a very important problem in complex grid environments. Prior to this, numerous algorithms were proposed to do effective task scheduling. Among them, the min-min algorithm is simple and well-known, but it suffers from load balancing and resource utilization. To overcome these drawbacks, a new Two Level Load Balanced (TLLB) grid scheduler algorithm is proposed. In the first level, a min-min algorithm is used to create ITQ, and in the second level, a new transformation technique is used to reschedule. Performance analyses show that the proposed algorithm improves the performance in both make span and effective utilization of resources.

References

- Siriluck Lorpunmanee, Mohd Noor Sap, Abdul Hanan Abdullah, and Chai
TLLB: Two-Level Load Balanced Algorithm for Static Meta-Task Scheduling in Grid Computing


Index Terms

Computer Science

Algorithms

Keywords

Grid computing Min-min Load balancing resource utilization Task Scheduling Flow-time